Biographical Sketch of Thomas Potts James. By J. T. Rothrock.

(Read before the American Philosophical Society, May 19, 1882.)

In the line of botanists binding the present to that remote past, when our flora was as unknown accurately to Americans, as to the rest of the world, but few survive. Darlington, Sullivant, Torrey, James, within recent years have dropped out of the chain. The interest attaching to such men is more than an ordinary one. They were the last generation to which our botanical pioneers belonged, and they witnessed not only the rise of a republic in politics, but the rise of a republic in science. They could remember when in all this broad land there were not a score of botanists; when the science of plants and plant life held no recognized place in the colleges of this country; when the literature of our flora was almost exclusively foreign; when the commonest implements of exact research came from over the ocean. With them nearly the whole scientific tradition of the country disappeared. Later events find prompt and wide circulation in our scientific periodicals, but much that would interest the future is lost to the world when one of these honored witnesses leaves us to join the host that went before.

Thomas Potts James, in memory of whom this brief sketch has been prepared, is the latest whose loss we deplore.

Mr. James was born at Radnor, in Pennsylvania, on September 1, 1808. He died suddenly of paralysis at Cambridge, in Massachusetts, on Feb. 22, 1882. His ancestors were among the leaders of thought and action before and during the Revolution. They arrived in Pennsylvania earlier than Penn. His grandfather, Thomas Potts, after raising a company and being commissioned captain in 1776, raised a battalion and was made its colonel. He was also a member of the convention which assembled in Philadelphia on July 9, 1776, to form the new government. Washington and his staff were frequent guests at his house, and in it many important public letters were written. As the friend and intimate associate of Franklin it is not strange that he was one of the original members of this society.

He was also among the earliest to develop the iron interests of Pennsylvania. A great uncle of Mr. James, Dr. Jonathan Potts, was Deputy Director-General of the Hospital in the Northern Department during the Revolution, and was subsequently made Director-General of the Hospital in the Middle Department when this State and New Jersey became the seat of war.

Another great uncle, Samuel Potts, was a member of the convention which framed the Constitution of Pennsylvania, and was also elected Associate Judge. The name of the family is still perpetuated in Pottstown.

Coming then from such a stock it is not strange that the subject of this sketch developed marked intellectual traits. Indeed it would have been stranger if he had not.

Mr. James' love of botany appears to have been an early one. As stated in the Potts' niemorial by the authoress, his wife and congenial life companion,—"From his youth he devoted his leisure to the study of botany, and, having acquired a knowledge of phenogamous plants, he turned his attention to the cryptogamia, making the musci a specialty." "He received his early education in Trenton, N. J., intending to enter Princeton College, but was prevented by circumstances," etc.

There are some men who acquire all the mental discipline that a college course could confer without entering those halls of learning. Mr. James was one of these. It may be doubted whether he would have earned any more honored name, or placed the future bryologists of the land under any greater obligations if he had taken an academic degree.

For almost forty years he was engaged in the drug business in this city, but never allowed the cares of trade to crowd science out of mind, and though not at the time enabled to devote all, or even much of his attention to botany, yet the years were far from being unproductive in the science to which he was so deeply attached. In 1853 the third edition of (that work, which will always be a classic book of science) Darlington's Flora Cestrica appeared. To this Mr. James contributed the portion describing the class of Anophytes, i. e., Mosses and Liverworts. Though hardly thirty pages long it represents an amount of labor which is now past belief. It may in part be regarded as a pioneer work. To say nothing of the labor involved in collecting the material for that short paper. there were the critical determinations of the species and the always perplexing questions of synonyms to settle. It is needless to say that these duties were most conscientiously done, for Mr. James never worked in any other manner. Every line which he ever wrote upon a scientific subject was most carefully considered. In December, 1855, he published in the Proceedings of the Philadelphia Academy of Natural Sciences, "An enumeration of Mosses detected in the Northern United States, which are not comprised in the Manual of Asa Gray, M. D., some of which are new species."

Mr. Lesquereux informs me also that about this time he wrote another paper of similar character to the above but where, or what its exact title is neither of us can say. In the Smithsonian Report for 1867 there appeared in "A Sketch of the Flora of Alaska," prepared by the present writer, a list of the "Anophytes determined and compiled by Thomas P. James." Extending over but two pages, that list still represents a conscientious search through all the botanical literature of the region in order to bring together in a single view its entire moss flora; then, too, there are his original determinations of the specimens coming from that region which were placed in his hands.

In 1871 he published another catalogue with important notes in the now famous Volume V (of the Clarence King Surveys) which represents Mr. Watson's earliest labor in the science in which he has since become so distinguished.

In 1878 another catalogue of Western Mosscs was published by Mr. James in Volume VI of the Wheeler Survey. It contains short notes, and descriptions of the less known species.

In the Proceedings of the American Academy of Arts and Sciences for February, 1879, conjointly with Leo Lesquereux, he published "Descrip-

tion of some new Species of North American Mosses."

At the time of his death Mr. James was engaged with Mr. Lesquereux in the preparation of "A Synopsis of North American Mosses," a work which is of greater magnitude and importance than its modest title would indicate. Together they had advanced to the Hypnaceæ, and of it Mr. Lesquereux writes to me "If I have time to finish this work, it must be published in both names."

I cannot forbear quoting what his distinguished colleague has written of Mr. James in a private letter to me. It is of far greater worth than any statement of mine can be:

"An excellent microscopist and delineator; an ardent collector of Mosses, he constantly devoted himself to their study. I came to this country in 1848, and it was only a little after my arrival here that he began sending me his mosses for determination. Our connection continued until his death. I received a letter from him but a few days before this. When I was obliged to abandon the use of the microscope he worked constantly upon sketches of all the interesting or doubtful American species and prepared for the descriptive part of which I took charge. He had, moreover, to give much time to the examination of collections of mosses sent for determination from various parts of the continent, those of E. Hall from Oregon, Macoon in Canada, Wolff and others from Illinois, so that his work and influence in the Bryology of North America have been very great, though his publications are limited to a few catalogues or memoirs." Then follows this touching tribute from his associate in what was to have been the crowning task of his active life: "As a colleague, as a man of truth, of honor, I regret him very much, but still more as an old friend. We were about the same age and I expected he would survive me for a long time." Surely such testimony from one who had constant relations with Mr. James for more than thirty years, in the same line of work, is praise indeed, and speaks volumes for the integrity and amiability of both.

In this connection I may add how cheerfully he always aided those who appealed to him for assistance in naming what to them were doubtful and difficult species. However badly prepared the specimens might have been, however common, or however worthless the material was to him, the same careful reply was always sent to the inquirer. These demands upon his time were frequent and serious; indeed we may fairly say that during his earlier years they were detrimental to his business. But from sympathy with, and desire to aid any fellow-student he tolerated these appeals to the very last. It is almost a pity that time which had become so valuable to science, during his later, most productive years, was so freely given away.

Mr. James was as modest as he was painstaking and accomplished. It was only after the repeated solicitations of his life-long friend, Prof. Gray, that he undertook the preparation of the Synopsis of North American Mosses in conjunction with Mr. Lesquereux. When, however, he consented, he began the task with all the eager earnestness of youth. Two years of constant work made it requisite that he should rest; and with this end in view he took a trip to Europe in 1878. But even there all the time he could give was spent in association with Schimper of Strassburg, then the head of European bryology, in comparing our American species and in settling synonyms. For a whole month Prof. Schimper gave his afternoons to labor with Mr. James in this task. The result of that visit will be apparent in placing our own moss flora in proper relation with that of Europe. His industry and singleness of purpose at a time when most men seek rest were wonderful. During the last two years of his life he labored "from ten to twelve hours each day over the mosses; often three or four hours at a time without moving from his table." Only a few weeks before his death when reminded by Mrs. James that he had already worked fourteen hours that day, and remonstrated with for writing by gaslight, his reply was, "this work must be done and I have no time to rest."

The end came, and came suddenly, but he was not unprepared for it. No one whose life was as devout as his, and who lived with such entire charity toward all men, could be unprepared.

February 22, 1882, Ash-Wednesday, Mr. James left his study and attended to his religious duties in the Chapel of the Protestant Episcopal Theological Seminary of Harvard University. It was to him the very gate to Heaven, though he little knew how soon he was to pass through and into the eternal world. Services being over he returned to his work. Leaving his study, he went into an adjoining room where he was seized by paralysis of the left side, and this was followed by loss of speech and then coma, from which without awakening he passed calmly away.

We may well imagine how profound the grief over the loss of such a husband and father would be. But it was hardly less deep in the hearts of his habitual associates. A letter received from Professor Gray, who stood by as Mr. James departed, contains a passage too sacred even for a biographical sketch, but which indicates a suppressed anguish and a sense of personal bereavement more clearly than any phrase set in intentional mournful measure could do. In another place Professor Gray has given his estimate of the man, and in a single sentence explained the cause of his own noble grief—because Mr. James "was admirable in all his relations."

Mr. James' active interest in botanical science, and the estimation in which he was held by his colleagues, are clearly indicated by the association he had in the learned societies of this land. He was

- "Fellow of the American Academy of Arts and Sciences,
- "Fellow of the American Association for the Advancement of Science,

- "Member and sometime Officer of the American Philosophical Society,
- "Treasurer of the American Pomological Society for 27 years,
- "Officer of the American Pharmaceutical Society, and also of the Philadelphia Drug Exchange,
  - "Professor of Botany to the Pennsylvania Horticultural Society,
  - "Member of the Boston Society of Natural History,
  - "Honorary Member of the Massachusetts Horticultural Society,
  - "And of other kindred Associations."

During one of the absences of an honored member of this Society in Europe Mr. James was his substitute as librarian. There are those still living who remember how very acceptable his services were in that capacity.

This would be a one-sided and very imperfect sketch of Mr. James if it made no allusion to his public spirit as a citizen. Whatever was in the interest of education or of philanthropy interested him. During the late war he was thoroughly "Union" in his sympathies, and did duty with the First Regiment of the National Guard. He was also a member of the Union League, and an active associate of those who upheld the Government under all circumstances. His loyalty nevered wavered.

In December 1851, he married Isabella Batchelder. This most fortunate union was the result of an acquaintance which began but fifteen months before, and which grew out of a correspondence between Dr. Darlington, Miss Batchelder, Mr. James, and Dr. Gray, relative to the publication of the letters of John Bartram. For more than thirty years Mr. James found in his wife a sympathy in all his work, and a cultured mind capable of appreciating and aiding in his own literary labor.

Such marriages are blessings to both the contracting parties. Mrs. James and four children survive, and now reside in Cambridge, Massachusetts, whither he removed from here in 1867.

We mourn over the loss of Mr. James not only because he was dear to a large circle of friends, or because he was an active promoter of science, but also because his death leaves his favorite study with but one prominent representative in this land, a representative full of years and of honor.

But there is no younger botanist on whom the mantle has fallen; none appear to take up the work as these veterans cease from their labors, and in this event the world is made poorer from the loss of our former associate.

Gentle, genial man, though we realize how serious a loss your departure has been to science here, we do not mourn for you as for those over whom we have no hope; neither may we question the wisdom of the decree which opened your eyes to the full glory of the celestial splendor you had so long, patiently, trustingly waited to see.